

Internal communication signals in a stored program controlled system comprising a plurality of units configured to process signals are provided by a free space optical beam line which is proximal to all of the plurality of units. The free space beam line is configured to contain optically encoded signals which comprises signals transmitted between and/or among the plurality of units. Each unit includes a probe for injecting optically encoded signals in the free space beam line and/or and for receiving optically encoded signals from the free space beam line. Advantageously, there may be a first terminal at a first end of the beam line to configure to transmit and terminate the optically encoded signals and a second terminal unit at the second end of the free space beam line configured to transmit and terminate the optically encoded signals.